UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

23389

7590

05/17/2010

SCULLY SCOTT MURPHY & PRESSER, PC 400 GARDEN CITY PLAZA SUITE 300 GARDEN CITY, NY 11530

EXAMINER				
BAIG, ADNAN				
ART UNIT	PAPER NUMBER			
2461				

DATE MAILED: 05/17/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590.343	08/24/2006	Yasushi Maruta	20165	8411

TITLE OF INVENTION: CDMA RECEIVING APPARATUS AND METHOD

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	08/17/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or <u>Fax</u> (571)-273-2885

INSTRUCTIONS; This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where ap in m

maintenance fee notifica				-		correspondence address as	
CURRENT CORRESPOND	ENCE ADDRESS (Note: Use Bi	lock 1 for any change of address)	Feet	(c) Transmittal This	certificate cannot be used f	or domestic mailings of the for any other accompanying ent or formal drawing, must	
23389		7/2010			icate of Mailing or Trans		
SCULLY SCC 400 GARDEN (SUITE 300	OTT MURPHY & CITY PLAZA	PRESSER, PC	I her State addr trans	reby certify that this	Fee(s) Transmittal is being b sufficient postage for fir	g deposited with the United st class mail in an envelope above, or being facsimile late indicated below.	
GARDEN CITY	7, NY 11530				. (,	(Depositor's name)	
						(Signature)	
						(Date)	
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR	A	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/590,343	08/24/2006	•	Yasushi Maruta	•	20165	8411	
TITLE OF INVENTION	N: CDMA RECEIVING	APPARATUS AND MET	THOD				
	T	I	T	I			
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE I			
nonprovisional	NO	\$1510	\$300	\$0 1	\$1810	08/17/2010	
EXAM		ART UNIT	CLASS-SUBCLASS				
	ADNAN	2461	370-441000				
1. Change of correspond CFR 1.363).		,	2. For printing on the p (1) the names of up to		attorneys 1		
☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer			or agents OR, alternatively,				
			registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is 3				
Number is required.			listed, no name will be				
			THE PATENT (print or type data will appear on the parts.)	· ·	is identified below the d	ocument has been filed for	
recordation as set fort	th in 37 CFR 3.11. Comp	pletion of this form is NO	T a substitute for filing an	assignment.		ocument has seen med for	
(A) NAME OF ASSI	GNEE		(B) RESIDENCE: (CITY	and STATE OR CO	UNTRY)		
Please check the appropr	riate assignee category or	categories (will not be pr	rinted on the patent): \Box	Individual 🖵 Corp	ooration or other private gro	oup entity 📮 Government	
4a. The following fee(s)	are submitted:	41	o. Payment of Fee(s): (Plea	se first reapply any	previously paid issue fee	shown above)	
Issue Fee			A check is enclosed.				
☐ Publication Fee (No small entity discount permitted) ☐ Advance Order - # of Copies		Payment by credit card. Form PTO-2038 is attached. The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number (enclose an extra copy of this form					
			overpayment, to Depo	sit Account Number	(enclose a	n extra copy of this form).	
5. Change in Entity Sta	itus (from status indicate ns SMALL ENTITY stati	*	☐ b Applicant is no lone	ger claiming SMALL	ENTITY status. See 37 C	FR 1 27(g)(2)	
NOTE: The Issue Fee an	d Publication Fee (if req	uired) will not be accepte	d from anyone other than t			ne assignee or other party in	
interest as shown by the	records of the United Sta	ites Patent and Trademark	Office.				
Authorized Signature				Date			
Typed or printed name				Registration No.			
This collection of inform	nation is required by 37 C	CFR 1.311. The information	on is required to obtain or r	etain a benefit by the	public which is to file (and	d by the USPTO to process) ag gathering, preparing, and me you require to complete artment of Commerce, P.O.	

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.

OMB 0651-0033

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE



United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,343	08/24/2006	Yasushi Maruta	20165	8411
23389 75	90 05/17/2010		EXAM	IINER
SCULLY SCOT	Γ MURPHY & PRES	BAIG, A	ADNAN	
400 GARDEN CIT	TY PLAZA		ART UNIT	PAPER NUMBER
SUITE 300 GARDEN CITY, I	NY 11530		2461 DATE MAILED: 05/17/201	0

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 537 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 537 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 (571)-272-4200.

	Application No.	Applicant(s)	
	Application No.	Applicant(s)	
Notice of Allowability	10/590,343	MARUTA ET AL.	
Notice of Allowability	Examiner	Art Unit	
	ADNAN BAIG	2461	
The MAILING DATE of this communication app All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85 NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT R of the Office or upon petition by the applicant. See 37 CFR 1.31:	(OR REMAINS) CLOSED or other appropriate comrester. This application is	in this application. If not included nunication will be mailed in due cours	
1. \square This communication is responsive to $2/9/2010$.			
2. ☑ The allowed claim(s) is/are <u>1-12</u> .			
 3. Acknowledgment is made of a claim for foreign priority u a) All b) Some* c) None of the: 1. Certified copies of the priority documents have) or (f).	
2. Certified copies of the priority documents have	e been received in Applicat	ion No	
3. Copies of the certified copies of the priority do	ocuments have been receiv	ed in this national stage application fr	om the
International Bureau (PCT Rule 17.2(a)).		•	
* Certified copies not received:			
Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDON! THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.		le a reply complying with the requiren	nents
4. A SUBSTITUTE OATH OR DECLARATION must be subn INFORMAL PATENT APPLICATION (PTO-152) which give			E OF
5. CORRECTED DRAWINGS (as "replacement sheets") mu	st be submitted.		
(a) ☐ including changes required by the Notice of Draftsper	son's Patent Drawing Revi	ew (PTO-948) attached	
1) hereto or 2) to Paper No./Mail Date	<u>.</u>		
(b) ☐ including changes required by the attached Examiner Paper No./Mail Date	's Amendment / Comment	or in the Office action of	
Identifying indicia such as the application number (see 37 CFR each sheet. Replacement sheet(s) should be labeled as such in			of
 DEPOSIT OF and/or INFORMATION about the depo- attached Examiner's comment regarding REQUIREMENT 			ne
Attachment(s)	E □ Notice of	reference Detect Application	
1. Notice of References Cited (PTO-892)		nformal Patent Application	
2. Notice of Draftperson's Patent Drawing Review (PTO-948)	Paper No	Summary (PTO-413), b./Mail Date	
 Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 	r. □ Examiner	s Amendment/Comment	
4. Examiner's Comment Regarding Requirement for Deposit of Biological Material	8. 🛛 Examiner	s Statement of Reasons for Allowanc	е
-	9. 🗌 Other	<u></u> .	
/ADNAN BAIG/	/Huy D Vu/		
Examiner, Art Unit 2461	Supervisory P	atent Examiner, Art Unit 2461	

DETAILED ACTION

Allowable Subject Matter

- 1. Claims 1-12 are allowed
- 2. The following is an examiners statement for reasons of allowance:

Regarding Claim 1, the prior art fails to teach the steps of a channel estimation value

correction circuit which corrects the channel estimation value from said channel

estimation circuit on the basis of a reception power fluctuation due to uplink

transmission power control which is caused by a timing offset between the individual

channel of the user and the shared channel;

a shared channel demodulation circuit which demodulates a signal corresponding to the

shared channel of the user which is obtained by performing despreading operation for

the radio reception output on the basis of the channel estimation value corrected by said

channel estimation value correction circuit.

Regarding Claim 7, the prior art fails to teach the steps of correcting the channel

estimation value calculated on the basis of a reception power fluctuation due to uplink

transmission power control which is caused by a timing offset between the individual

channel of the user and the shared channel;

Demodulating a signal corresponding to the shared channel of the user which is

obtained by performing despreading operation for the radio reception output on the

Art Unit: 2461

basis of the channel estimation value corrected in the channel estimation value

correction step.

3. In (US 2003/0058823), Nishimura discloses a CDMA receiver for performing

channel estimation of an individual channel received using pilot bits obtained by

despreading of the pilot bits with the known data for an uplink communication. The

individual channel consists of a pilot portion and a data portion. However the method

does not disclose the teaching of a channel estimation value correction circuit which

corrects the channel estimation value from said channel estimation circuit on the basis

of a reception power fluctuation due to uplink transmission power control which is

caused by a timing offset between the individual channel of the user and the shared

channel;

a shared channel demodulation circuit which demodulates a signal corresponding to the

shared channel of the user which is obtained by performing despreading operation for

the radio reception output on the basis of the channel estimation value corrected by said

channel estimation value correction circuit.

4. In (US 2004/0203397), Yoon discloses a CDMA receiver which generates

accurate estimates of a received signal forward link power control where a shared

channel and an Individual channel are multiplexed on a forward and reverse link

between a Base Station and Mobile Station. However the method does not disclose the

teaching of a channel estimation value correction circuit which corrects the channel estimation value from said channel estimation circuit on the basis of a reception power fluctuation due to uplink transmission power control which is caused by a timing offset between the individual channel of the user and the shared channel;

a shared channel demodulation circuit which demodulates a signal corresponding to the shared channel of the user which is obtained by performing despreading operation for the radio reception output on the basis of the channel estimation value corrected by said channel estimation value correction circuit.

5. In (USP 6,434,366), Harrison discloses a receiver for estimating adaptive array weights for a pilot channel in relation to a traffic channel which are delayed for synchronizing a slot in which they were requested with a slot in which they were used by a transmitter. A synthesized pilot is generated and demodulated in the receiver. However the method does not disclose the synthesized pilot generated based on the calculated weights due to uplink transmission power control which is caused by a timing offset between an individual channel and shared channel and therefore does not disclose a channel estimation value correction circuit which corrects the channel estimation value from said channel estimation circuit on the basis of a reception power fluctuation due to uplink transmission power control which is caused by a timing offset between the individual channel of the user and the shared channel;

Art Unit: 2461

a shared channel demodulation circuit which demodulates a signal corresponding to the shared channel of the user which is obtained by performing despreading operation for the radio reception output on the basis of the channel estimation value corrected by said channel estimation value correction circuit.

6. The dependant claims 2-6 and 8-12, being further limiting, definite and enabled by the specification, are also allowable. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ADNAN BAIG whose telephone number is (571) 270-7511. The examiner can normally be reached on Mon-Fri 7:30m-5:00pm eastern Every other Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 10/590,343 Page 6

Art Unit: 2461

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ADNAN BAIG/ Examiner, Art Unit 2461